

PERSONAL INFORMATION

Lavinia-Petronela Curecheriu



☎ 0232-201102/1176

✉ lavinia.curecheriu@uaic.ro

Sex F | Nationality Romanian

WORK EXPERIENCE

2018-present

Lecturer

Course and practical works: Physics and Technology of Polarisation medium, Physics and Technology of nanocomposite materials, Technologic transfer; Seminars and practical work Physics Dielectrics
Department of Physics University „Alexandru Ioan Cuza”, Iași
Teaching

2021-2024

Researcher in PN-III-P4-ID-PCE-2020-1988

Research

Department of Physics University „Alexandru Ioan Cuza”, Iași
Fundamental research

2020-2022

Manager project PN-III-P1-1.1-TE-2019-1689

Research

Department of Physics University „Alexandru Ioan Cuza”, Iași
Fundamental research

2020-2022

Researcher in PN-III-P1-1.1-TE-2019-1929

Research

Department of Physics University „Alexandru Ioan Cuza”, Iași
Fundamental research

2018-2022

Researcher in PN-III-P4-ID-PCCF-0175

Research

Department of Physics University „Alexandru Ioan Cuza”, Iași
Fundamental research

2017-2020

Researcher in PN-III-P4-ID-PCE-2016-0817

Research

Department of Physics University „Alexandru Ioan Cuza”, Iași
Fundamental research

2018-2020

Manager project PN-III-P1-1.1-TE-2016-1951

Research

Department of Physics University „Alexandru Ioan Cuza”, Iași
Fundamental research

2013-2018

Assistant professor

Seminars and practical work: Physics and Technology of Polarisation medium; Physics Dielectrics;

Electrical and Magnetic Phenomena, Classical mechanics
Department of Physics University „Alexandru Ioan Cuza” , Iași
Teaching

2015-2017 Postdoc in PN-II-RU-TE-2014-4-1494 project

Research

Department of Physics University „Alexandru Ioan Cuza” , Iași
Fundamental research

2013-2016 Manager project PN-II-RU-TE-2012-3-0150

Research

Department of Physics University „Alexandru Ioan Cuza” , Iași
Fundamental research

2011-2016 Researcher in PN-II-ID-PCE-2011-3-0745 and PN-II-PT-PCCA-2013-3-1119 projects

Research

Department of Physics University „Alexandru Ioan Cuza” , Iași
Fundamental research

2010-2013 Postdoc in POSDRU/89/1.5/S/49944 project

Research

Department of Physics University „Alexandru Ioan Cuza” , Iași
Fundamental research

2009-2013 Associate assistant professor

Seminaries and practical works: Physics and Technology of Polarisation medium; Physics of Dielectric materials, Electrical and magnetic phenomena

Department of Physics University „Alexandru Ioan Cuza” , Iași
Teaching

2007-2009 Assistant researcher

Research

Department of Physics University „Alexandru Ioan Cuza” , Iași
Fundamental research

EDUCATION AND TRAINING

2020 Habilitation thesis

„Alexandru Ioan Cuza” , Iași

2006-2009 PhD thesis

Physics, „Alexandru Ioan Cuza” , Iași

2004-2006 Master's degree

Applied Physics, „Alexandru Ioan Cuza” , Iași

First in class (average grade 100%; thesis grade: 100%)

2000-2004 Bachelor's degree

Biophysics, „Alexandru Ioan Cuza” , Iași

Average grade 97.1%; thesis grade: 88.9%

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C1
Italian	C2	C2	C1	C1	C1
French	C2	C2	B2	B1	B1
Spanish	B1	B1	B1	B1	A2

Communication skills Good communication skills: Ability to establish and maintain good working relations

Organisational / managerial skills Experience in management of national grants: CNCSIS - Ministry of Education and Research of Romania – Young researcher Team- PN-III-P1-1.1-TE-2019-1689 (2020-2022), PN-III-P1- 1.1-TE-2016-1951 (2018-2020), , PN-II-RU-TE-2012-3-0150 (2013-2016), L’Oreal-UNESCO (fellowship 2017) Grant type BD - The individual research grants for the PhD Students (2007- 2009); Grant of CNCSIS - Ministry of Education and Research of Romania, Grant type TD – Young Research Grant (2007-2009), Grant type TE- Young Research Teams (2013-2016)

Computer skills Good command of Office tools
Good command of Origin
Basic command of Maple

Other skills Well skilled for laboratory activities:
Physics laboratory: measurements of electric properties of ferroelectric ceramics at low and high frequency; high field measurements of ferroelectric ceramics.
Chemistry labs: preparation of nanopowders and ceramics by classical methods and soft chemistry (core-shell technique)

ADDITIONAL INFORMATION

Publications **111 papers, 76 ISI papers**
ISI individual score 32.972
I=8.995, P=22.774, C=187.93 as CNATDCU standard
1045 citations without self-citations
Hirsch 21 (WOS), 21 (Scopus), 23 (Google)
More than 150 presentations to international conferences (1 Tutorial talk, 1 Keynote, 15 Invited, 70 Oral presentations)

- Projects
- ✓ **Principal investigator in 7 national projects:**
 - **PN-III-P1-1.1-TE-2019-1689** - Exploring critical conditions as a new tool for enhancing electrocaloric properties of Ba-based lead-free ceramics, CritEC,2020- 2022, 431.900 RON (CNCSIS)
 - **PN-III-P1-1.1-TE-2016-1951**-Scale dependence properties in lead-free piezoelectric ceramics, ProLEAF, 2018-2020, 450.000 RON (CNCSIS)
 - **L’OREAL- UNESCO** fellowship FOR WOMEN IN SCIENCE, Physics Section, 2017 - Engineered polymeric composites for flexible electronics, 42.000 RON
 - **GI-2014-03**, Study of nonlinear properties in lead free relaxor, 2014-2015, 20.000 RON (UAIC)
 - **PNII-RU-TE-2012-3-0150**, Investigation of the mesoscopic polar order and size effects in driving polarization mechanisms of tunability in perovskites

- (IMPOTUN), 2013-2015, 645.833 RON (UEFISCDI)- evaluated A+ at final report;
 - **PNII-RU-TD 212/2007**, Contribution to the study of non-linear phenomena in ferroelectric ceramics, 2007-2009, 41.000 RON (CNCSIS);
 - **BD- 71/2007** Contribution to the study of non-linear phenomena in ferroelectric ceramics, 2007-2009, 48.000 RON (CNCSIS)
- ✓ **1 international project in Management Committee:**
- **COST ACTION MP1308** - Towards oxide-based electronics, 2014-2018
- ✓ **Member in 1 international project**
- **Polycom** - Engineered polymeric composites with high energy density (ICMATE- Genoa, ISMAC Genoa, UAIC Iasi), 2016-2018
- ✓ **Member in 15 national projects:**
- **PN-III-P4-ID-PCE-2020-1988** (dir. CSII. Cristina Ciomaga) – Engineering of lead-free porous ceramic materials for piezo-, pyroelectric sensors with energy harvesting applications (2021-2024)
 - **PN-III-P1-1.1-TE-2019-1929** (dir.lect.dr. Leontin Padurariu) – A new material design paradigm in electroceramics: charged defects engineering (2020-2022)
 - **PN-III-P3-3.1-PM-RO-FR-2019-0069** (dir. Prof.univ. Liliana Mitoseriu)- multiscale investigations and modeling of novel ferroelectric oxides (2019-2020)
 - **PN-III-P4-ID-PCCF-2016-0175** (dir.conf.univ.dr. Aurelian Rotaru)-High-k Nanoparticle Multilayer Dielectrics for Nanoelectronics and Energy Storage Applications (Highkdevice) 2018-2022
 - **PN-III-P4-ID-PCE-2016-0817** (dir. Prof.univ. Liliana Mitoseriu)- Fundamental insights on scale-dependent phenomena in barium titanate-based ferroelectrics: critical grain size and effect of nanostructuring (FerroScale) 2017-2019
 - **PN-II-RU-TE-2014-4-1494** (dir. dr. Leontin Padurariu)- "Exploatarea porozitatii in materiale feroelectrice prin controlul câmpului local pentru îmbunătățirea proprietăților funcționale (EXPOFER)" 2015-2017
 - **PN-II-PT-PCCA-2013-4-1119** (dir. proiect prof. dr. Liliana Mitoseriu)- Magnetolectric composites with emergent properties for wireless and sensing applications (MECOMAP), 2014-2016
 - **PNII-PCCE-2-2011-0006** (dir.proiect CS I dr. Lucian Pintilie)- Efectul interfetelor asupra transportului de sarcina in heterostructuri feroice/multiferoice", 2012-2016
 - **PN-II-ID-PCE-2011-3-0745** (dir. proiect prof.dr. Liliana Mitoseriu) -Design de material, preparare, proprietati si modelare de structuri multifunctionale oxidice pentru microelectronica si noi aplicatii in stocare de energie (MULTIFOX), 2011-2016
 - **PN-II-ID-PCE-2011-3-0668** (dir proiect prof.dr. Adelina Ianculescu)-Size effects, formation mechanisms and properties in micro- and nanostructured perovskite ferroic systems prepared by alternative methods, 2011-2016
 - **Bilateral project Romania-Italy** (dir. proiect prof. dr. Liliana Mitoseriu): Searching for new BaO-TiO-FeO multiferroics: from material design to magnetolectric applications (MULTIFER), 2013-2014
 - **Bilateral project Romania-Slovenia** (dir. proiect prof. dr. Liliana Mitoseriu)- Dielectric spectroscopy and tunability of low-temperature processed complex perovskites (DISTUNAB), 2012-2013
 - **PN II –RU TE 187** (Dir. proiect: Dr. Cristina Ciomaga) - Investigarea efectelor de volum, interfață și de percolație în materialele compozite multifuncționale cu geometrie controlată și metamateriale (IMECOMP), 2010-2013
 - **Research project type A** (dir.proiect prof.dr. Alexandru Stancu) - Studiul relaxării magnetice și a comutării în sisteme nanoparticulate (RELSWITCH), 2006-2008
 - **CEEX-FEROCER** (Dir. proiect: prof.dr. Adelina Ianculescu) Dezvoltarea integrată de noi concepte și tehnologii în sinteza, caracterizarea modelarea și aplicații ale ceramicilor micro- și nanostructurate, 2006-2008

Patents Adelina Carmen Ianculescu, Liliana Mitoseriu, Lavinia Petronela Curecheriu, Florin Mihai Tufescu, Florin Tufescu, Method for measuring tunability of ceramic materials, involves using circuit having high voltage source controlled by function generator and applying high voltage to assay-sample through protection resistor, Patent Number(s): RO125567-A0 (ISI index)

Lavinia Petronela Curecheriu, Adelina Carmen Ianculescu, Liliana Mitoseriu, Florin Tufescu, Florin Mihai Tufescu, BST ceramic material, method for measuring tunability and BST ceramic device for measuring high voltage by galvanic separation, Patent Number(s): RO125528-A2; RO125566-A0 (ISI index)

Awards

- **International awards:**

- ✓ Lavinia Curecheriu- IAAM Scientist Medal 2019
- ✓ Leontin Padurariu, Lavinia Curecheriu, Vincenzo Buscaglia, Liliana Mitoseriu, Modeling the size effects on the dielectric properties in nanostructured ferroelectric ceramics, COST MP0904 Action Showcase, Bucharest, Romania, 16-20 June 2014 (best oral presentation)
- ✓ Leontin Padurariu, Lavinia Curecheriu, Vincenzo Buscaglia, Liliana Mitoseriu, Permittivity vs. field dependence in nanostructured ferroelectric ceramics: the role of grain size, First COST MP0904 Training School, March 2012 (best poster)
- ✓ Felicia Prihor, Adelina Ianculescu, Petronel Postolache, Lavinia Curecheriu, Liliana Mitoseriu, Functional properties of the $(1-x)\text{BiFeO}_3 - x\text{BaTiO}_3$ solid solutions (Hamamatsu Awards), at ECAPD, Roma, Italy, August 2009

- **National awards:**

- ✓ 3rd place at national competition L'Oreal-UNESCO – For Women in Science, Physic Section 2016
- ✓ 3rd place at national contest "Tineri cercetători în Știință și inginerie" in 2015
- ✓ "IUVENTAS SCIENTIAES" award given by Universitatea Alexandru Ioan Cuza from Iași, for best results in research for 2014-2015
- ✓ Award of CARPATH Research Center for 2010 for paper "Functional properties of $\text{BaTiO}_3\text{-Ni}_0.5\text{Zn}_0.5\text{Fe}_2\text{O}_4$ ceramics prepared from powders with core-shell structure", Journal of Applied Physics
- ✓ 1st place in national selection of Students Speech Contest at 11th International Conference and Exhibition of the European Ceramic Society, given by Societatea Romana de ceramică, April 2009, In situ preparation of multiferroic composite nanopowders and ceramics with core- shell structures- L. P. Curecheriu

Research stage

- Research stage in project PN-III-P1-1.1-MC-2019-1164 la ICMATE-CNR, Genoa, Italy – 3 weeks (11 November-2 December 2019)
- Research stage in project PN-III-P1-1.1-TE-2016-1951 at ICMATE-CNR, Genoa, Italy – 6 weeks (29 July-8 September 2019)
- Research stage in project PN-III-P1-1.1-TE-2016-1951 at ICMATE-CNR, Genoa, Italy – 2 weeks (February 2019)
- Research stage in project L'Oreal-UNESCO la ICMATE-CNR and ISMAC-CNR, Genoa, Italy – 2 weeks (February 2018)
- Research stage in project PN-III-P4-ID-PCE-2016-0817 la ICMATE-CNR, Genova, Italia – Genoa, Italy – 2 weeks (September 2017)
- Research stage in project L'Oreal-UNESCO la ICMATE-CNR and ISMAC-CNR, Genoa, Italy – 3 weeks (July-August 2017)
- Research stage STSM COST MP1308 at ICMATE-CNR, Genoa, Italy (November 2016)
- Research stage STSM IC1208 at ICMATE-CNR, Genoa, Italy (July-August 2016)
- Research stage GI-2014-3 at Institute of Energetics and interphases IENI-CNR Genoa, Italy - (16-26 January 2016)
- Research stage GI-2014-3 at Institute of Energetics and interphases IENI-CNR Genoa, Italy - 2 weeks (15-30 August 2015)
- Research STSM COST IC1208 at Institute of Energetics and interphases IENI-CNR Genoa, Italy - 1 month (14 July-14 August 2015)

- Research stage GI-2014-3 at Institute of Energetics and interphases IENI-CNR Genoa, Italy - 2 weeks (29 January-12 February 2015)
- Research stage PN II-RU-TE-2012-3-0150 at Institute of Energetics and interphases IENI- CNR Genoa, Italy - 2 weeks (13-23 November 2014)
- Research stage in bilateral project Romania-Italy at Institute of Energetics and interphases IENI-CNR Genoa, Italy – 1 month (15 July-16 August 2014)
- Erasmus teaching stage- University of Vilnius, Lithuania (6-8 July 2014)
- Research stage in bilateral project Romania-Italy at Institute of Energetics and interphases IENI-CNR Genoa, Italy – 1 month (November 2013)
- Research stage POSDRU/89/1.5/S/49944 at Institute of Energetics and interphases IENI- CNR Genoa, Italy – 2 months (July-September 2011)
- Research stage STSM COST MP0409 at University College Dublin, Irland – 2 weeks (May 2011)
- Romanian Government Scholarship at Institute of Energetics and interphases IENI- CNR Genoa, Italy – 6 months (October-December 2008, February-May 2009)
- Research stage STSM COST 539, at Instituto de Ciencia de Materiales de Madrid ICMM- CSIC, Madrid, Spania – 2 weeks (May 2009)
- Research stage STSM COST 539, at Institute of Energetics and interphases IENI-CNR Genova, Italia – 6 weeks (April-May 2008)
- ERASMUS fellowship at Institut National Polytechnique de Toulouse-ENSEEIH, Toulouse, France - 4 months (March-June 2005)

23.02.2022